

Social Network as an ally on meaningful learning at Microbiology classes in a Problem Based Learning (PBL) Curriculum.

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The curriculum at Antonio Garcia Filho Campus is entirely based on active learning methodologies. This Campus belongs to University of Sergipe (UFS), is located in Lagarto-SE and comprises eight high school courses, including Pharmacy. The Microbiology classes in Pharmacy are conducted with Problem Based Learning (PBL) methodology and should fulfill all the topics along ten problems. Considering that there are many different bacteria genders to be discussed, and the students frequently felt unsecure about the PBL process and effective learning, we decided to use the social network *Facebook* to overcome these issues. To achieve these aims we divided the 26 students into six groups and each group was in charge to study and post at Facebook the characteristics one of this groups of bacteria; *Staphylococcus*, *Streptococcus*, *Bacillus*, *Mycobacterium*, *Pseudomonas*, *Enterobacteriaceae*. Along five weeks of study, the four tutors use an inquiry approach to guide the students to contemplate the main aspects of the bacterial groups such as morphological and stain characteristics, virulence factors, diseases and their treatments and epidemiological aspects. All the students and tutors participated actively posting texts, flowcharts, schemes totalizing 42 archives and more than 200 reply comments. To evaluate this learning strategy we use two methodologies; a semi-structured online question sheet and a final exam at the end of Microbiology classes. The online survey asked the students about the learning strategy itself, their own and Tutors' performance. Almost 89% of the students attributed good or excellent concepts for themselves and 50% of them recognize that have posted only about their own bacterial group. 90% of them agree that the *Adopt a Bacteria* is an efficient way to study the bacteria genders and to help and further the tutorial sessions discussions. Beyond that, almost all of them answered that the inquiry approach of the tutors was an efficient way to guide the studies about each bacterial group. Concerning the final exam, the students perform equally along the questions of the written test, regardless if they were discussed only in tutorial sessions or Facebook. However, the students perform better when the questions subject were discussed both at tutorial and social network. Moreover, the students keep posting bacterial news after the end of Microbiology classes. The main complains of the students were about the reduced number of tutors and the low mark of this activity at final score. Considering the massive participation and acceptance of the students and tutors allied with positive influence at the final exams the strategy of *Adopt a Bacteria* is a good way to enhance the meaningful learning at PBL based curriculum. Beyond that we believe that this strategy has effectively broken the classroom boundaries as a unique learning place.

Key words: Problem Based Learning, Meaningful Learning, Microbiology Classes.